Consumers Power Company

Kenneth W Berry
Director
Nuclear Licensing

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-1636

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Director,
Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
TECHNICAL SPECIFICATION CHANGE REQUEST REVISION -
ADDITION OF 480 V DISTRIBUTION BUSES, REDISTRIBUTION
OF MCC'S AND MISCELLANEOUS REVISIONS TO SPECIFICATION 3.7

Attached are three (3) originals and thirty-seven (37) conformed copies of a proposed change to the Palisades Technical Specification which supersedes a previous proposed change submitted on April 10, 1984. The proposed change concerns the addition of 480 V distribution buses 19 and 20 which were added to provide class 1E power for the new Control Room heating ventilating and air conditioning system. Also, new Motor Control Centers (MCC's) were added and are being powered from the buses. Due to the addition of the new buses, certain MCC's have been redistributed to other 480 V distribution buses.

In addition to these changes, the LCO statement of Specification 3.7.2 has been revised such that it will apply above primary coolant temperature of 325°F rather than above reactor criticality. Two new LCO conditions were added to Specification 3.7.2 to address the fuel oil storage tank level and the fuel oil transfer pumps. Also included in this change request are several editorial changes and corrections to Specification 3.7 and its Basis.

A check in the amount of $4,000 was attached to the April 10, 1984 letter.

Kenneth W Berry

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Director, Nuclear Licensing

CC Administrator, Region III, USNRC
NRC Resident Inspector - Palisades

Attachment

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CONSUMERS POWER COMPANY
Docket 50-255
Request for Change to the Technical Specifications
License DPR-20

For the reasons hereinafter set forth, it is requested that the Technical Specifications contained in the Provisional Operating License DPR-20, Docket 50-255, issued to Consumers Power Company on October 16, 1972, for the Palisades Plant be changed as described in Section I below:

I. Changes:

A. Delete existing item 3.7.1(e) and add the following new item, as 3.7.1(e):

"480 V distribution buses 19 and 20."

B. Re-letter existing items 3.7.1(f) through (l), as 3.7.1(h) through (n).

C. Add the following new item, as 3.7.1(f):

"MCC numbers 1, 2, 25 and 26."

D. Add the following new item, as 3.7.1(g):

"MCC numbers 7, 8, 21, 22, 23 and 24."

E. Revise newly re-lettered item 3.7.1(h) as follows:

"125 V d-c buses D10 and D20"

F. Revise newly re-lettered item 3.7.1(i) as follows:

"Four preferred a-c buses Y10, Y20, Y30 and Y40."

G. Revise newly re-lettered item 3.7.1(k) as follows:

"Both diesel generators, with a minimum of 2500 gallons of fuel in each day tank, a minimum of 16,000 gallons of fuel in the underground storage tank, and at least one fuel oil transfer pump."

H. Revise newly re-lettered item 3.7.1(m) as follows:

"240 V a-c power panels No 1 and 2, and their associated Air Blast Circuit Breaker (ABCB) distribution systems, which are located in the switchyard."

I. Revise the first sentence of Specification 3.7.2 as follows:

"With the primary coolant system at a temperature greater than 325°F, the requirements of Specification 3.7.1 may be modified to permit one of the following conditions to exist."

J. Delete existing item 3.7.2(e) and add the following new item, as 3.7.2(e):

"480 V distribution bus 19 or 20 may be inoperable for up to 8 hours provided there are no inoperable safety feature components associated with the operable bus."

K. Re-letter existing items 3.7.2(f) through (m), as 3.7.2(h) through (o).

L. Add the following new item, as 3.7.2(f):

"MCC 1 and 25 or 2 and 26 may be inoperable for up to 8 hours provided there are no inoperable safety feature components associated with the operable pair of MCCs."

M. Add the following new item, as 3.7.2(g):

"MCC 7, 21 and 23 or 8, 22 and 24 may be inoperable for up to 8 hours provided there are no inoperable safety feature components associated with the operable trio of MCCs."

N. Revise newly re-lettered item 3.7.2(h) as follows:

"125 V d-c bus D10 or D20 may be inoperable...inoperability of the D20 bus."

O. Delete the asterisk in newly re-lettered item 3.7.2(k), as well as the corresponding outdated footnote. Also change "any month" to "any 30-day period," as follows:

"...to 7 days (total for both) during any 30-day period, ..."

P. Revise newly re-lettered item 3.7.2(o) as follows:

"The switchyard 125 V d-c power..."

Q. In newly lettered items 3.7.2(l) and (o), change "ACB breakers" to "Air Blast Circuit Breakers (ABCBs)" (1 instance), and change "ACB breakers" to "ABCBs" (5 instances).

R. Add the following new item, as 3.7.2(p):

"The contents of the underground fuel oil storage tank may be between 16,000 gallons and 10,000 gallons for 72 hours."

S. Add the following new item, as 3.7.2(q):

"Both fuel oil transfer pumps may be inoperable for 16 hours."

T. Revise the Basis section of 3.7 as follows:

1. Change the second and third sentence of paragraph one to:

   "The 480 V equipment is arranged on four buses. The 2400 V equipment is supplied from two buses."

2. Replace the second and third sentences of paragraph 2 with:

   "To supplement the standby power source, a spare 345-2.4/4.16 kV, 25 MVA transformer is installed and can be connected in place of a start-up transformer within 3 days.(2)"

3. In paragraph 4, second sentence, change "3.2.2" to "3.1.2".

4. In paragraph 5, change the first sentence, to:

   "Equipment served by the engineered safeguards buses is arranged so that loss..."

5. In paragraph 6, change the first sentence to:

   "The requirements for MCC No 1, 2, 7, 8, 21, 22, 23, 24, 25 and 26 as well as the 480 V distribution buses 11, 12, 19 and 20 will assure availability of..."

6. In paragraph 6, second sentence, change "buses No. 1 and No. 2" to "buses D10 and D20"

7. In paragraph 7, change the first and second sentences to:

   "The required minimum fuel oil availability of 2500 gallons in each diesel's day tank is considered adequate since approximately 20 hours running time (worst case loading) is available before transfer to fuel oil from the storage tank is mandatory. The fuel oil transfer pumps are used for transferring fuel oil from the storage tank to the day tanks."

8. In paragraph 7, fourth sentence, change "7 days" to "6 days".

9. In paragraph 8, second sentence, change "ACB breakers" to "Air Blast Circuit Breakers (ABCBs)".

10. In paragraph 10 change "unit" to "diesel generators".

11. Under References make the following changes:

"(2) FSAR Update Section 8.1"
"(3) FSAR, Section 8.3.2 and 8.4"
"(5) FSAR, Section 8.4.1.3"

II. Discussion:

A. MCCs 1 and 2 are being powered from the new 480 V buses 19 and 20 to alleviate overloading of 480 V buses 11 and 12. They are no longer associated with the conditions for MCC 7 and 8. Class 1E MCCs 21, 22, 23 and 24 should now be associated with conditions for MCC 7 and 8. 480 V distribution buses 19 and 20 were added to provide Class 1E power for the new control room HVAC system and future 1E loads. MCCs 25 and 26 were added to power the HVAC loads.

B. Renumbering items

C. Rearranged for clarity, also see "A" above.

D. Rearranged for clarity, also see "A" above.

E. Editorial change, to utilize the equipment names as found on plant drawings.

F. Editorial change to add specific equipment descriptors.

G. The specification is revised with an additional requirement that at least one fuel oil transfer pump be operable. The fuel oil transfer pumps were not previously addressed in Chapter 3 of the Palisades Technical Specifications.

H. Editorial change stating the switchyard as the location of the equipment. Additionally, an editorial change revising the breaker description from ACB (air-circuit-breaker) breaker to Air Blast Circuit Breaker (ABCB) has been made to reflect the correct terminology and more accurately describe the breakers.

I. The change in the LCO statement of Specification 3.7.2 is requested to provide alignment between Specifications 3.7.1 and 3.7.2. Currently, 3.7.1 requires various electrical components to be operable prior to the primary coolant system exceeding 325°F. Specification 3.7.2 currently allows the requirements of Specification 3.7.1 to be modified to the extent that one exception may be allowed after the reactor has been made critical. For conditions between 325°F and critical (hot shutdown), a literal interpretation of current Technical Specifications would require Specification 3.0.3 to be invoked if any one of the

conditions of Specification 3.7.1 was not met. When below critical, the plant is in a more conservative condition than when critical, however, when critical or above, Specification 3.7.2 allows more latitude through the specified LCO conditions. Consequently, specifying 325°F for both 3.7.1 and 3.7.2 resolves an unnecessary conservatism, and is in accordance with CE Standard Technical Specifications.

J. The added buses and MCCs have been provided LCOs consistent with existing Technical Specifications. See "A" above.

K. Renumbering items.

L. See "J" above.

M. See "J" above.

N. Editorial change, to utilize the equipment names as found on plant drawings.

O. Editorial change to clarify that month can apply to any 30-day period.

P. Editorial change stating switchyard as location of the equipment.

Q. See "H" above. Editorial change of air circuit breaker to air blast circuit breaker.

R. This item has been added to provide an LCO of 72 hours in the event the contents of the fuel oil storage tank fall below 16,000 gallons, but contains at least 10,000 gallons. Existing Technical Specifications do not address the situation of less than 16,000 gallons of fuel oil in the storage tank, thus requiring Technical Specification 3.0.3 to be entered, even though sufficient fuel oil for more than 4 days of diesel generator operation (under worst case loading) is still available with the remaining fuel oil (10,000 gal + 2,500 gal in day tank). Therefore, an LCO of 72 hours provides operator flexibility, while not compromising plant safety.

S. This item has been added to provide an LCO of 16 hours in the event that neither fuel oil transfer pump is operable. Fuel oil day tank capacity is sufficient for at least 20 hours of diesel generator operation before additional fuel would have to be transferred from the underground storage tank. Existing Technical Specifications do not address the operability requirements of the fuel oil transfer pumps, other than through a monthly surveillance requirement in Section 4.7.1(e).

T. (1) Editorial change

(2) Updated wording from the Palisades FSAR is substituted for the out of date information.

(3) Editorial change to correct the reference to the appropriate Technical Specification 3.1.2.

(4) Editorial change to clarify the intent.

(5) Editorial change to add additional MCC's and distribution buses.

(6) Editorial change for consistent nomenclature with plant drawings.

(7) Technical Specification 3.7.1 requires only 2500 gallons of fuel oil in the day tanks and 16,000 gallons in the storage tank. Therefore it is inappropriate to describe a higher capacity and a correspondingly longer run time. The following sentence has been clarified to reflect actual operational requirements of the fuel oil transfer pumps.

(8) Since the diesel generator day tanks do not necessarily contain more than 2,500 gallons, the day tank contents plus the storage tank contents provide approximately 6 days of run time rather than the stated 7 days.

(9) The breakers are Air Blast Breakers vice Air Circuit Breakers.

(10) Editorial change to clarify the sentence.

(11) Editorial changes to References.

Analysis of No Significant Hazards Consideration

The subject proposed Technical Specifications changes concern the following four items:

1. The addition of 480 V distribution buses 19 and 20 and the corresponding redistribution of loads of MCC's (physically installed and operational for start-up following the 1983/1984 refueling outage).

2. A revision of the LCO statement of Technical Specification 3.7.2 to apply above 325°F, rather than critical.

3. The addition of two new LCOs to Technical Specification 3.7.2, for fuel oil storage tank level and fuel oil transfer pump operability.

4. Editorial clarifications and corrections to the 3.7 Basis.

Item 1. reflects the addition of new 480 V distribution equipment and physical redistribution of MCC's to reduce loads on other buses, and is fully consistent with the format and intent of existing Technical Specifications. It also corrects several editorial deficiencies. The change request adds the new distribution buses and MCC's to the Technical Specifications. This administrative change to the Specifications maintains consistency with the existing Specifications and does not involve an increase in the probability or consequences of an accident nor create a new or different kind of accident. No margin of safety is affected by this change to the Technical Specifications.

Item 2. provides needed alignment between Specifications 3.7.1 and 3.7.2. Currently, 3.7.1 requires various electrical components to be operable prior to the PCS exceeding 325°f. Specification 3.7.2 allows the requirements of Specification 3.7.1 to be modified to the extent that one exception may be allowed after the reactor has been made critical. The condition between 325°F and critical is, therefore, not addressed. Since when subcritical, the plant is in a more conservative condition than when above critical (based on theory of all existing Technical Specifications which require transgression to successively lower reactor operating conditions as being inherently more conservative), it follows that the latitude currently afforded through the specified LCO condition of 3.7.2 when the reactor is above critical should also apply above 325°F. Consequently, specifying 325°F for 3.7.2 as well as 3.7.1 provides specific guidance while the plant is between 325°F and critical and is consistent with CE Standard Technical Specifications. The revision adds consistency between the specifications and no margin of safety is affected. Therefore no significant increase in the probability or consequences of an accident is created and the proposed specification does not create the possibility of a new or different kind of accident.

Item 3. allows a 72 hours LCO when the fuel oil storage tank is between 16,000 gallons and 10,000 gallons. Existing Technical Specifications do not address the situation of less than 16,000 gallons in the tank, requiring Specification 3.0.3 to be entered, even though sufficient fuel oil for more than 4 days of diesel generator operation (worst case loading) is available with only 10,000 gallons in the storage tank and the minimum day tank volume of 2,500 gallons. Therefore an LCO of 72 hours does not impact plant safety, while providing a level of operator flexibility. A second LCO of 16 hours when neither fuel oil transfer pump is available, along with a new requirement that at least one pump be operable prior to exceeding 325°F provide operating requirements where none were previously specified. Since over 20 hours of run time is available with the minimum day tank level, 16 hours for the fuel oil transfer pump LCO does not impact plant safety, while providing needed guidance to the operators regarding pump operability. The defining of the above noted requirements does not involve a significant increase in the probability or consequences of an accident

nor do they create a new or different kind of accident than previously evaluated. No margin of safety has been reduced with the proposed specification.

Item 4. is primarily editorial in nature. The Basis section was changed to more accurately reflect the specified minimum conditions of 3.7.1 with respect to fuel oil capacities and corresponding diesel generator run times. These changes to the Basis do not involve a significant increase in the probability or consequences of an accident nor do they create the possibility of a new or different kind of accident from any previously evaluated. Although changes were made which clarify the Basis with respect to available fuel oil capacity and corresponding run times, these assume the same consumption rate as found in the FSAR, along with the minimum fuel oil capacities specified by Technical Specification 3.7.1. Therefore no significant reduction in the margin of safety has occurred.

III. Conclusion

The Palisades Plant Review Committee has reviewed this Technical Specification Change Request and has determined that this change does not involve an unreviewed safety question and therefore involves no significant hazards consideration. This change has also been reviewed under the cognizance of the Nuclear Safety Board. A copy of this Technical Specification Change Request has been sent to the State of Michigan official designated to receive such Amendments to the Operating License.

CONSUMERS POWER COMPANY

By F W Buckman, Vice President
Nuclear Operations

Sworn and subscribed to before me this 25th day of March 1986.

Elaine E Buehrer, Notary Public
Jackson County, Michigan
My commission expires October 31, 1989

ATTACHMENT

Consumers Power Company
Palisades Plant
Docket 50-255

PROPOSED TECHNICAL SPECIFICATION PAGE CHANGES

March 25, 1986

5 Pages

IC0386-0046-NL04